COMPLETE LISTING OF ALL OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-12 (previously canceled)

Claim 13 (currently amended): An assembled substrate, comprising

a substrate having a first side and a second side, and a first electrical contact area on said first side and a second electrical contact area on said second side;

an electrical component having a plurality of leads electrically connected to said first electrical contact area of said substrate; and

a capacitor plate electrically connected to said second electrical contact area on said second side of said substrate substantially opposite said first electrical contact area of said substrate;

~~wherein said second electrical contact area on said second side of said substrate is used for In-Circuit Testing~~;

wherein the capacitor plate has a selected capacitance value that provides decoupling capacitance to the leads, and wherein ~~the capacitor plate comprises a~~ each ground plane in the capacitor plate is disposed between a first pair of dielectric layers and ~~a~~ each power plane in the capacitor plate is disposed between a second pair of dielectric layers, and wherein a first contact pad is connected to the ground plane and a second contact pad is connected to the power plane, and wherein the capacitor

plate comprises a top surface that includes a first dielectric layer and a bottom surface that includes a second dielectric layer.

Claim 14 (Original): The assembled substrate of claim 13, wherein said assembled substrate further comprises:

a first interposer between said component and said first electrical contact area on said first side of said substrate; and

a second interposer between said capacitor plate and said second electrical contact area on said second side of said substrate.

Claim 15 (previously presented): The assembled substrate of claim 14, wherein said first interposer and said second interposer are chosen from a group consisting of: a socket, or a conductive elastomeric material.

Claim 16 (previously presented): The assembled substrate of claim 13, wherein said substrate is chosen from a group consisting of: a PCB, an MCM, and a flexible substrate.

Claim 17 (previously presented): The assembled substrate of claim 13, wherein said component is chosen from a group consisting of: an LGA component, or a BGA component.

Claim 18 (Original): The assembled substrate of claim 13, wherein said capacitor plate has a plurality of layers of dielectric material separating a plurality of layers of conductive material.

Claim 19 (previously presented): The assembled substrate of claim 13, wherein said capacitor plate comprises:

a plurality of conductive power planes; and

a plurality of conductive ground planes, wherein said plurality of conductive power planes and said plurality of conductive ground planes are separated by one or more dielectric layers including a dielectric layer chosen from the materials comprising at least one of: FR4, a resin, an elastomeric material, or a ceramic.

Claim 20 (original): The assembled substrate of claim 13, wherein said capacitor plate is attached by solder to said second electrical contact area on said second side of said substrate.

Claims 21-29 (previously canceled)

Claim 30 (previously withdrawn): The assembled substrate of claim 13, wherein the capacitor plate is fabricated by a method comprising: estimating a capacitance for the capacitor plate; creating an electrical model of the capacitor plate as assembled on the substrate; determining if the electrical model predicts that the capacitor plate provides the required decoupling capacitance for contact pads under the electrical component; estimating a new capacitance for the capacitor plate, if the capacitor plate does not provide the required decoupling capacitance; building a prototype of the capacitor plate; assembling the capacitor plate on the substrate; and testing if the capacitor plate provides a correct capacitance after assembling the capacitor plate on the substrate.

Claim 31 (previously withdrawn): The assembled substrate of claim 13, wherein the capacitor plate is fabricated by a method comprising: estimating an initial required capacitance for a plurality of contacts on the capacitor plate; modeling the capacitor plate as assembled on the substrate; estimating a more precise required capacitance for a plurality of contacts on the capacitor plate after modeling the capacitor plate; and fabricating the capacitor plate according to the more precise required capacitance for the plurality of contacts.

Claim 32 (previously withdrawn): The assembled substrate of claim 13, further comprising: a clamp for clamping the capacitor plate and the component to the substrate.

Claim 33 (currently amended): The assembled substrate of claim 13, wherein ~~the~~ an electrical model is created by a computer aided design software.